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10 30 50 70 90  
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110 130 150 170  
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M A Q Y K G T M R E A G R A M H L L K K R E S  
190 210 230 250 270  
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Q R E Q M E V L K Q R I A E E T I L K S Q V D K R F S A H Y  
290 310 330 350  
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D A V E A E L K S S T V G L V T L N D M K A R Q E A L V R E  
370 390 410 430 450  
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R E R Q L A K R Q H L E E Q R L Q Q E R Q E Q E Q R E R  
470 490 510 530  
CAACCGTAAGATCTCTGCTCTCTTGGCACTAGACGACCTCGATGACAGGCGCGAGCGCGCCGAGGCCAGGCCGCCGAAACCTGGG  
K R K I S C L S F A L D D L D D Q A D A A E A R R A G N L G  
550 570 590 610 630  
CAAGAACCCCGAGCTGGACACCAGCTTCTTGGCAGACCGCGACCGCGAGGAGGAGGAGAAACCGCTCCGAGAGGAGCTGCGCCAAGAGTG  
R N P D V D T S F L P D R D R E E E E N R L R E E L R Q E W  
650 670 690 710  
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E A Q K E K V K D E E M E V T F S Y W D G S G H R R T V R V  
730 750 770 790 810  
GCGCAAGGGCAACACGGTGCAGCAGTTCCTGAAGAAGCGCTGCAGGGGTGCGCAAGGACTTCTTGGAGCTGCGCTCCGCCCGCGTGA  
R K G N T V Q Q F L K K A L Q G L R K D F L E L R S A G V E  
830 850 870 890  
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Q L M P I K E D L I L P M Y H T F Y D F I I A R A R G R S G  
910 930 950 970 990  
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P L F S F D V H D D V R L L S D A T M E K D E S H A G K V V  
1010 1030 1050 1070  
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L R S W Y E K N K H I F P A S R W E A Y D P E K K W D K Y T  
1090 1110 1130 1150 1170  
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I R  
1190 1210 1230 1250  
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1270 1290 1310 1330 1350  
TTGGTTGGTCTTTCTGAGTATTTTAGTGTGCCACCTGGATTTGCTGCATTGCTCTGCTGAGCTGTATTGAAACCATGACTGGGCCAC  
1370 1390 1410 1430  
TGTCAGACAGAAATTAGAATAGGAGGCACATTTTACCTGGTGGTTATGAGCATGGACTTGGGGGCCACAGTGACTGAGTTTGATTCC  
1450 1470 1490 1510 1530  
GACACAGCCCTCCTCTGCTGTGTAGTTTGGGTAAGCTTATTAACCCCATGCCCTCAGTTTGGTCACCTGTAAAAGGAAATAACAAGA  
1550 1570 1590 1610  
GCACCTACTTTATAAGATTGATGTGAGTATTAAGTGAATTAATTTGTAAAACGCTTAGCTCTTAATAAATGTTTCTGTTGTATTATA

Fig. 1

Fig. 2

Fig. 2 (cont'd)

2350 2370 2390 2410 2430  
ATTGCTGCATTGCTCTGCTGAGCTGTATTGAAACCATGACTGGGCCCACTGTCAGACAGAAATTAGAATTAGGAGGCACATTTTTTACCT  
2450 2470 2490 2510  
GGTGGTTATGAGCATGGACTTGGGGGCCACAGTGACTGAGTTTGATTCCCGACACAGCCTCCTCCTGCTGTGTAGTTTGGGTAAGCTT  
2530 2550 2570 2590 2610  
ATTAAACCCCATGCCTCAGTTTGGTCACCTGTAAAAGGAAATAACAAGAGCAGTTACTTTATAAGATTGATGTGAGTATTAAGTGAATT  
2630 2650 2670 2690  
AATATTTGTAAAACGCTTAGCTCTTAATAAATGTTTCTGTTGTTATTATTATGGTTTTGGTTAATTTATTAAAGGACTGCAATGACCTA  
2710 2730 2750 2770 2790  
GTTCAGAACTATTTGAGGGCAAAGGTGGAAGCTGCCCATCAGTGGTCCCAGGATCAGCAGTTGCCAGCAGGAGGGGGCTAGCAAAGGTTGG  
2810 2830 2850 2870  
GGAGCAGCCCCCTCTAGTGGGCTTTAGCTGGGTGTTAGCCCCAGAAGTTAGGAGGACAGTGAGCTAATGCAAGTAGCCTGCAG

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10 30 50 70 90  
ATTTCGCAAAAGCACCAGAAGGAAGAGTCTTGGCTCATACATCAAAAGCTGCAGAACTCTGTGAAGTACATCAGACCCAGAGGCTACCAAG  
110 130 150 170  
AAACAGGGAAGTGGGAGGCCCAAAAAGCCTTGGCTGAAGTGCAGGCGATGGCGCAGTACAAAGGCACCATGCGGGAAGCTGGCCGGGCCAT  
M A Q Y K G T M R E A G R A M  
190 210 230 250 270  
GCACCTGATCAAGAAGCGTGAGAGCAGAGAGGAGGAGTGGAGAGCAGCGATCGCAGAGGAGACCATCATGAAGTCAAAAGT  
H L I K K R E K Q K E Q M E V L K Q R I A E E T I M K S R V  
290 310 330 350  
GGACAAGAAGTCTCGGCACACTACGACGCCGTGGAGGCCGAGCTGAAGTCCAGTACGGTGGGCCCTGGTGACCCTGAATGACATGAAGGC  
D K K F S A H Y D A V E A E L K S S T V G L V T L N D M K A  
370 390 410 430 450  
CAAGCAGGAGGCCCTGCTGAGGAGCGGGAGATGCAGCTGGCCAGAGGGAGCAGCTGGAGCAACGCCGGATACAGCTGGAGATGCTGCC  
K Q E A L L R E R E M Q L A K R E Q L E Q R R I Q L E M L R  
470 490 510 530  
CGACAAGGAGCGAAGGCGAGAGCGCAAGCCAGATCTCAACCTGTCTTTTACGTTGGACGAGGAAGAAGCTGACCAAGAGGACAGCCG  
E K E R R R E R K R K I S N L S F T L D E E E G D Q E D S R  
550 570 590 610 630  
CCAAGCCGAGAGTGCCGAGGCCCAAGTGTGGAGCCAAAGAACTTGGGCAAGAATCCGATGTGGACACGAGCTTCTTGGCCCGACCC  
Q A E S A E A H S A G A K K N L G K N P D V D T S F L P D R  
650 670 690 710  
CGAGCCGAGGAGGAGGAGAACCGGTTGGCGGAGGAAGTGGCGCAGAGTGGAGGCGGAAGCGCGACAAGTGAAGGGCGAGGAGGTGG  
E R E E E E N R L R E E L R Q E W E A K R E K V K G E E V E  
730 750 770 790 810  
GATCACCTTCAAGTACTGGGATGGCTCCGGCCACCGGCGACGGTGGCATGAGCAAGGGCAGCACGGTGCAGCAGTTCTTGAAGCGGGC  
I T F S Y W D G S G H R R T V R M S K G S T V Q Q F L K R A  
830 850 870 890  
GCTGCAGGGGCTGGCGAGGGACTTCCGGGAGCTGGGGCAGCGGCGCTGAGCAGCTCATGTACGTCAAGGAGGATCTCATCTTCCGCGA  
L Q G L R R D F R E L R A A G V E Q L M Y V K E D L I L F H  
910 930 950 970 990  
CTATCACACCTTCTACGACTTCATCOTGGCCAAAGCCCGGGGCAAGAGCGGCCCGCTCTTCAGCTTCGACCTGCACGACGATGTGGGGT  
Y H T F Y D F I V A K A R G K S G P L F S F D V H D D V R L  
1010 1030 1050 1070  
GCTGAGCGATGCCACGATGGAGAAAGATGAGTCAACGCGGGCAAGGTGGTGTCTTCCAGCTGGTACGAGAAGAACAAGCACATCTTCC  
L S D A T M E K D E S H A G K V V L R S W Y E K N K H I F P  
1090 1110 1130 1150 1170  
TGCCAGCCGCTGGGAGCCCTACGACCCCGAGAAGAAGTGGGACAGGTACACCATCCGGTGATGCCAAGTCCAGTTTGGGGACCTTACTC  
A S R W E P Y D P E K K W D R Y T I R  
1190 1210  
CCTAACTATCGAAAATTAAATAAATACAGAGGGTCCCCGTAAATCGGA

Fig. 3

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10 30 50 70 90  
CTAAAACTGAAAGTTATTCTGATCAACCACTACTATACCACATGCAAAATGGAGTCAGAGCTTTCTGTCTCCTCTGTAGCTAAGATCACT  
110 130 150 170  
AATGAGTTATTGTATGAAAAGGCAATAAAATCATGCTGTCTGGAGAGTGCCAATACTTTCAGACTAGTGTATCACGTAAACTCTTTAGTA  
190 210 230 250 270  
ACAACTACACACAAAAATTTAATCTGTAATAATCAAAGGCCCAAGTGAGCAACGACAGTCCAGGAAAACTTCATGGGAGGATTGCATTT  
290 310 330 350  
CAGTTGTCAAGAGATCAGACGCTGGCAGCAGGACTGCATCCATCAGTCAGTCCAAGTCGGCAGTTATACATGACCAACCACTGATTGGCC  
370 390 410 430 450  
CAATCTCTGTCTCTGATTGGTTAGAGCCTGCTTAGCAGTGGCCAATGTTTGTGATATTTCTGTGTCACTTAGAACAAACAATATTCGC  
470 490 510 530  
AAAAGCACCAGAAGGAAGAGTCTTGGCTCATACATCAAAAGGTGAGGGGACTGGCTTGAATCCAGCTGGGGCAGATGTGGAGGTACAGC  
550 570 590 610 630  
TCTTTAAACTCGAGTAAACCAATTGTGAAGGGAGTTGAATGTTAGAGGAAAGGAATTTGTCCATTATCCTGCAAGCAGGGGAGACTAAT  
650 670 690 710  
GAGCCCTATCGGTGACATAATATCAACATTTTATTGTAATTTAGGAATCACAACCTAGCAGGAAGGAGGAAGATGCCTTAAAGGGCTAT  
730 750 770 790 810  
GACATATGCCTAGGAAAAAGAAATGGGGCTTGTCTCTCTATTGGTTGCTTTTCACTGCTGTGTCAAAAGCAACCTAAGGAGGAGGA  
830 850 870 890  
AAGGGTTTATTTGATTGACTGTTTGACTCACATTTAATCTTGACAGCAAGTTGGCAGAAGCACGGAGTCAATGTTGTTTCTGTAGTCAGA  
910 930 950 970 990  
AAGCCGAGCAAGATAAGGACTGCGTTTATCTGCTTTTCCCTATTCTCTCTTCTACTAGGTCTGAGACTCAGCCCCATGGGCATGGTAAG  
1010 1030 1050 1070  
GCCATGTTCAAGATGGTTTGTCTTTCTCTAGTTAAATCTTTCTGAAAATACTCCACAGACAACATGCCAAGAGCTGTGTATCCTAAGG  
1090 1110 1130 1150 1170  
TTCCAAATCTCTGTTAGTTGACAAGATTAAACATTACATGAGTCTCACTCTTAACTCAGGTCTGATACTGTTAGCTTATAGTACTGAAA  
1190 1210 1230  
GCATACTGAAGGCTTCTGTCTCTGCTAGATTGCTCTGAACCTCTCTTTCTGCCACTGCAG

Fig. 4 (A)

10 30 50 70 90  
 GAATTC AAA CAAGCCAGGGAC CAGCATGAGCTTTAAAGCAGCTTGGCATATCAAAGAAAAGAAAGATGCTACGGAAATGCCGAGGAAACÀ  
 110 130 150 170  
 TTTAGACCTTTGGAATGACATGGAAATGTCAGAGCAAAGCÀCTGTTTGGGÀCCTATGCGGTGAAATGGTGTCTTCAGGGGÀAACAAGAGGG  
 190 210 230 250 270  
 TTTGGGGGACÀCAGTTTGGAGTTTGGAAAGÀGTTTGATAAGAGGATGCCAGCTGTTCATGGGAATGAGAGTCCACCAGTÀAAGAAGGAGC  
 290 310 330 350  
 TACAGAAGGGTTGGGAGGCÀCTCGTAGAGAGCGGTCAATTCAAGTTGAGTCCAGTTAAATTAAGAGATCTCTCTTTTCCCTTGACTGAA  
 370 390 410 430 450  
 CACAGAGAAAACACTTTGTÀCTTGGCCCATCTCTGTGCÀTGCAAGTCCCTGATGTCTTGTCTCACGGCAAGGGAGGAGAGCTCAG  
 470 490 510 530  
 AGTTCTTTTGTGTACTTTAÀGCACTGACACAAAGTGAGTTCCACTAAAACCTCATGCAAAAATCGTTCCTÀAGACTTGTGCTAGGATGAAA  
 550 570 590 610 630  
 GCTCCTTGGGATCTGCCAAGACCATAACATTAACGGGAGCTTAACCTAGCÀTCATCACCCCTCCAGGTGCÀGCTAGGGGAGGCTTTCAGG  
 650 670 690 710  
 ACTCTTTTCTTCTCTGCTCTGCTCCTGÀAGGAGTGGGÀTCCAACAAGGGCAGGTACTATCCTAAAAGGCCAACCCCTCATCAGGAG  
 730 750 770 790 810  
 ACACGGTTTTCACCTTGACCCAGCTTCACTGTGGCTAGTCTCAGGAACCCAGGCCAGGCTCTCTCATTTGCTCTGCTCTTGCATGGCT  
 830 850 870 890  
 GTGCATGAGCAGACACGGGÀGAGCATGTGGTTTGCTCTGCAGACCACTCTACATGCAAAACCCCTCAAAAACCTACTGTACTAACTCAGTÀ  
 910 930 950 970 990  
 GTCACATGAGGCTATCTCAGTTTGAAGTAAAATGCTCCGTTGGTGACAGTAGTTGCATTTCAAGTACTGAGGGGCTTCTGTGATCAGT  
 1010 1030 1050 1070  
 AGTTACCACÀTCGGGTACCCCTGGAGACAGACTCATCAGAGAGGAAGCTCATTGTAGGGCTCTGGTGTÀGACCATTAAATGACGCAGCTG  
 1090 1110 1130 1150 1170  
 TACTGGTTTGATTTCTCGAGCÀGTTTGTGTTAGTTGTGTTGTTTGTGTTTCTAGCTGCAGAAATCTGTGAACTGACATCAGACCCAGAA  
 1190 1210 1230 1250  
 GGCTACCAGAAAACAGGGACTGGGCAGGCCAAAAGCCTTGGCTGAACCTGCAGGCATGGGCGAGTACAAAGGCACCATGCGGGAAGCTGG  
 1270 1290 1310 1330 1350  
 CCGGGCCATGCACTGATCAAGAAGCGTGÀGAAGCAGAAAGGAGCAGATGGAGGTGCTGAAGCAGCGCATCGCAGAGGAGÀCCATCATGAA  
 1370 1390 1410 1430  
 GTCAAAAGTGGACAAGAAGTTCTCGGCACÀCTACGACCCGTTGGAGGCCAGCTGAAGTCCAGTACGGTGGGCTGCTGÀCCCTGAATGÀ  
 1450 1470 1490 1510 1530  
 CATGAAGGCCAAGCAGGAGGÀCCTGCTGAGGGAGCGGAGATGCAGCTGGCCAGAGGGAGCAGCTGGAGCAACGCTGGATACAGCTGGÀ  
 1550 1570 1590 1610  
 GATGCTGCGCAGAGAAGGAGCÀAGGCGAGAGCGCAAGCGCAAGATCTCCAACCTGTCTTTCAGGTTGGAAGGAGGAAGGTGACCAAGÀ  
 1630 1650 1670 1690 1710  
 GGACAGCCGÀCAAGCCGAGAGTGCCGAGGGCCACAGTGTCTGGAGCCAAAGAACTTGGGCAAGAAATCCCGATGTGGACÀCGAGCTTCTT  
 1730 1750 1770 1790  
 GCCCCAGCTGAGCGCGAGGÀAGGAGGAGAAACCGGTTGCGCGAGGAACTGCGGAGGAGTGGGAGGCGAAGCGGAGAGGTGAAGGGCGÀ  
 1810 1830 1850 1870 1890  
 GGAGGTGGAGATCACCTTCAGCTACTGGGÀTGGCTCCGGCÀCCCGGCGCÀCGGTGCGCATGAGCAAGGGCAGCACGGTGCAGCAGTTCCT

Fig. 4 (B)

1910 1930 1950 1970  
GAAGCGGGCGCTGCAGGGGCTGCGCAGGGACTTCCGGGAGCTGCGGGCAGCGGGCGTGGAGCAGCTCATGTACGTCAAGGAGGATCTCAT  
1990 2010 2030 2050 2070  
CCTGCGCGCACTATCACACCTTCTACGACTTCATCGTGGCCAAAGCCCGGGCCAAGACCGGCCCGCTCTTCAGCTTCGACGTGCACGACGA  
2090 2110 2130 2150  
TGTGCGGCTGCTGAGCGATGCCACGATGGAGAAAGATGAGTCACACGCGGGCAAGGTGGTGCCTCGCAGCTGGTACGAGAGAGAACAAGCA  
2170 2190 2210 2230 2250  
CATCTTCCCTGCCAGCCGCTGGGAGCCCTACGACCCCGAGAGAAAGTGGGACAGGTACACCATCCGGTGATGCCAAGTCCCACTTTGGGG  
2270 2290 2310 2330  
ACCTTACTCCCTAACTATCGAAAATAATAAATACAGAGGGTCCCCGTAAATCGGATGTGTGGTTCTGTACCTGGCGTCACTTCTTCGGT  
2350 2370 2390 2410 2430  
GTTTTTAATGTTCTGTGTTGTGGCTCCTTGTGTCTGTGTGAAAAGGGACATGTTTTGACTAAGTGGGTTGTGCACATTAGCTTGGTG  
2450 2470 2490 2510  
GGCCAGCAGACTGGGTTTGATTTCTTGCTCAATGTCTTACTTGTGTGTGAGCAAAATCATTCGGTCAATTGACTCCTTTCCCCACC  
2530 2550 2570 2590 2610  
TATACAAGGAAGTTACACCCCTTCAGGCCAGCGTGAGGAGTGAGTTAATATTTGTAAACACTTGGAACTCACTCAGTAAATGCCCTGCTGT  
2630 2650 2670 2690  
TTTGTGGGCTGGTTGCTTTACTAAAGAATGCCTACGCGATCCATCTCTGAAATGTCAAAACCAGGGTAGACCTGCATATGTCAATTGGT  
2710 2730 2750 2770 2790  
TTCAGGCTCAGTCGGTGCCTGAAAGCTGGGTACAGCTTATAAGATCGGAGCGCTTATTTTCTTATCTTCACCCAAAGCTCACATCTA  
2810 2830 2850 2870  
CATGGCAAGATTCTAAATCCCGCCCTTTAAGTTTGTATAATGTTATTCTTGTGAGTGTTTTGTAAATTTTCACTTAAAAACGTCTAAA  
2890 2910 2930 2950 2970  
TACAGTGCATCTCTTTCACGGATTTTTTAAGTTACCCCTTTATGTAAAGACCAAGACTTATCTTTGGATCTCTTGCTCTGTTTCTG  
2990  
GCGCTGAGTACTTCCGCCAGCCCAAGAACATGAATTC

Fig. 4 (B) (cont'd)

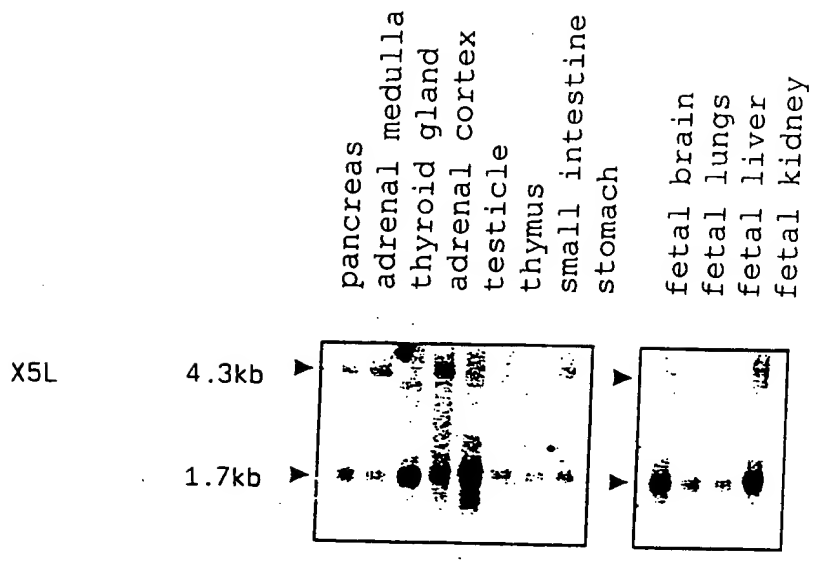


Fig. 5



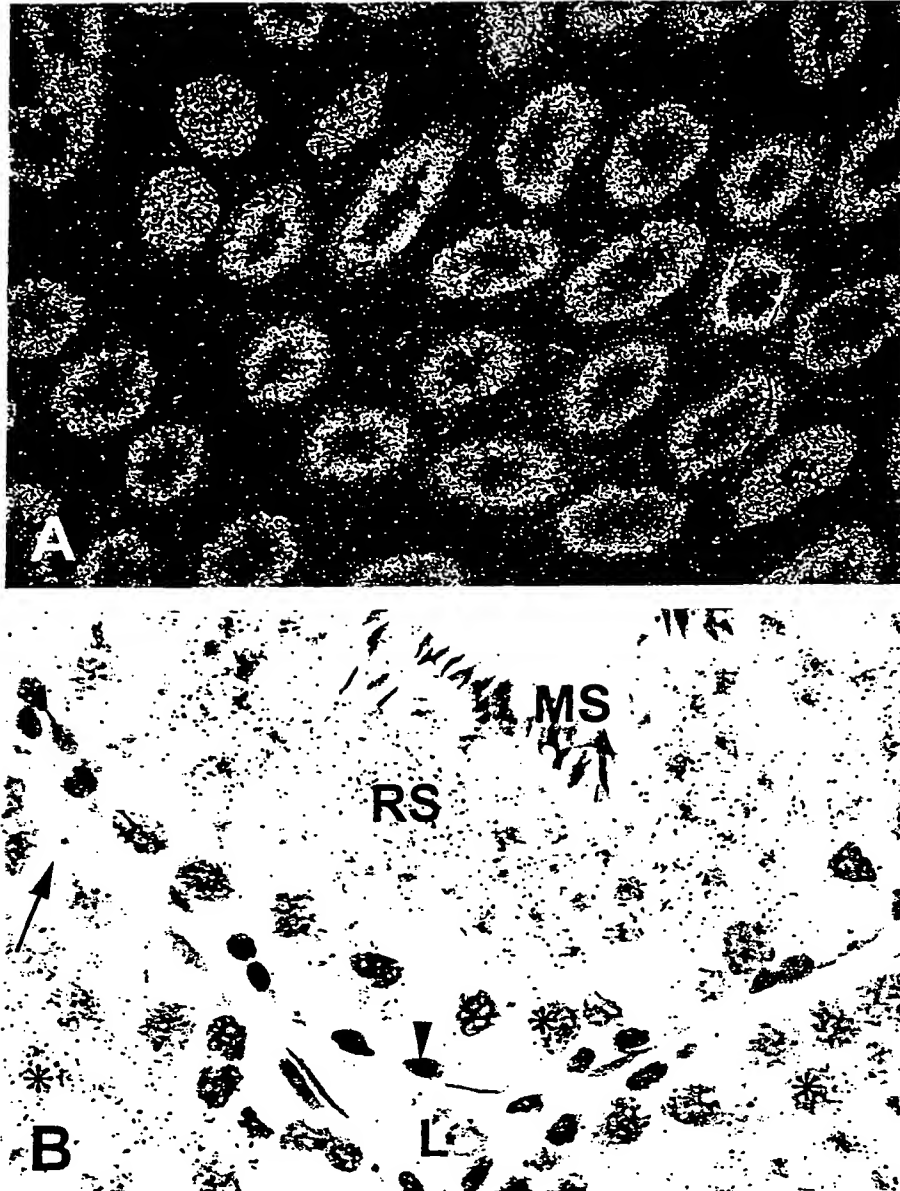


Fig. 6